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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,267	10/22/2001	Gunter A. Kohler	52314US016	5099

32692 7590 09/30/2003

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EXAMINER
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CROWELL, ANNA M

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/014,267

Applicant(s)

KOHLER ET AL.

Examiner

Michelle Crowell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 41-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 41-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 11, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 11 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings were received on July 1, 2003. These drawings are accepted.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 41-45, 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler et al. (U.S. 5,464,667) in view of Yializis (U.S. 4,954,371).

Referring to Figures 1, 2, and 4, column 4, lines 25-44, column 7, lines 36-46, column 8, lines 25-28, lines 45-51, and column 9, lines 22-32, and column 19, lines 65-67, Kohler discloses a jet plasma apparatus comprising a hollow cathode slot system 40 (col. 9, lines 22-30) and an adjustable anode system 60 (col. 10, lines 35-41). The hollow cathode slot system 40 includes three compartments in series: a first compartment 41, a second compartment 42, and a third compartment 43 (col. 7, lines 16-19). The first compartment 41 has a hollow cathode tube 46 (point source) (col. 7, lines 36-42) wherein plasma is formed, the second compartment 42 is a mixing chamber connected to both the first and third compartment (col.8, lines 1-3), and the third compartment 43 has two parallel electrode plates 55 and 56 (col.8, lines 45-47). In the second

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compartment, plasma is mixed with a feed gas prior to contacting the substrate (col. 7, lines 64-66). The feed gas source 49 is positioned relative to the cathode system 40. Additionally, the hollow cathode tube (point source) 46 has a leading edge, and the tube is positioned inside the cylindrical walls 44. Furthermore, a substrate 75 contacts a radio frequency bias electrode 70 during the deposition process.

Kohler fails to teach an oil delivery system for providing a vaporized organic material.

Referring to Figures 5 and 6 and column 5, lines 3-10, 36-48, col. 8, lines 67 – col. 9, lines 10, and column 11, lines 29-36, Yializis teaches an apparatus for coating a substrate using an oil delivery system 110, 261. The oil delivery system includes an atomizer 115 for forming droplets, a vaporization chamber 116, and a nozzle structure 118 for delivering the organic material vapor to the chamber 123. Various materials are selected for the oil delivery system such as natural oils or silicone. By using a vaporized organic precursor in the apparatus, an organic material layer is deposited on the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to art to provide an oil delivery system as taught by Yializis as the feed gas source in Kohler in order to form an organic material layer on a substrate.

4. Claims 46 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohler et al. (U.S. 5,464,667) in view of Yializis (U.S. 4,954,371) and Cann et al. (U.S. 5,342,660).

The teachings of Kohler in view of Yializis are disclosed above.

Kohler in view of Yializis fails to teach a magnet.

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Referring to Figure 1 and column 3, lines 31-35, Cann teaches magnets 217 surrounding the plasma jet apparatus 215. The magnets are used to accelerate and focus the plasma towards the deposition region. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to surround the point source's tube of Kohler in view of Yializis with a magnet as taught by Cann in order for the plasma to be accelerated and focused towards the substrate.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 41-44 and 47-49 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15, 16, 18, and 19 of U.S. Patent No. 5,464,667 in view of Yializis (U.S. 4,954,371).

Claims 41-44 and 47-48 of the present application differ from claims 15, 16, 18, and 19 by adding the limitation of an oil delivery system.

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Although the present Kohler adds the limitation of an oil delivery system to the jet plasma apparatus, it is obvious over Yializis.

Yializis teaches an apparatus for coating a substrate using an oil delivery system 110, 261. The oil delivery system includes an atomizer 115 for forming droplets, a vaporization chamber 116, and a nozzle structure 118 for delivering the organic material vapor to the chamber 123. Various materials are selected for the oil delivery system such as natural oils or silicone. By using a vaporized organic precursor in the apparatus, an organic material layer is deposited on the substrate.

It is the Examiner's position that it would have been obvious to one of ordinary skill in the art to provide an oil delivery system as taught by Yializis as the feed gas source in Kohler in order to form an organic material layer on a substrate.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 41-50 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Crowell whose telephone number is (703) 305-1956. The examiner can normally be reached on M-F (8:00 - 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on (703) 308-1633. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

AMC *ame*  
September 26, 2003

*Luz Alejandro Milero*  
**LUZ ALEJANDRO-MILERO**  
**PRIMARY EXAMINER**